MARS

5400 /0420 Page 1 of ? 0400 D280 04-23-01.

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/731.872

DATE: 03/26/2001 TIME: 12:46:57

,

Input Set : F:\SEQ.LIS\Seq.lis
Output Set: N:\CRF3\03262001\1731872.raw

8-3

```
3 <110> APPLICANT: Dumas Milne Edwards, Jean Baptiste
             Bouqueleret, Lydie
     5
             Jobert, Severin
     7 <120> TITLE OF INVENTION: FULL-LENGTH HUMAN CDNAS ENCODING POTENTIALLY SECRETED PROTEINS
     9 <130> FILE REFERENCE: 78.US3.REG
C--> 11 <140> CURRENT APPLICATION NUMBER: US/09/731,872
C--> 11 <141> CURRENT FILING DATE: 2000-12-07
    11 <150> PRIOR APPLICATION NUMBER: US 60/169,629
    12 <151> PRIOR FILING DATE: 1999-12-08
                                                                         ENTERED
    14 <150> PRIOR APPLICATION NUMBER: US 60/187,470
    15 <151> PRIOR FILING DATE: 2000-03-06
    17 <160> NUMBER OF SEQ ID NOS: 482
    19 <170> SOFTWARE: Patent.pm
    21 <210> SEO ID NO: 1
    22 <211> LENGTH: 2201
    23 <212> TYPE: DNA
    24 <213> ORGANISM: Homo sapiens
    26 <220> FEATURE:
    27 <221> NAME/KEY: CDS
    28 <222> LOCATION: 169..1692
    30 <220> FEATURE:
    31 <221> NAME/KEY: sig_peptide
    32 <222> LOCATION: 169..249
    33 <223> OTHER INFORMATION: Von Heijne matrix
            score 7.15265901862021
            seg VLLLLLERGMFS/SP
    37 <400> SEQUENCE: 1
    38 agatgtgaat ageteeacta taccageete gtetteette egggggacaa egtgggteag
    39 ggcacagaga gatatttaat gtcaccetet tggggettte atgggactee etetgecaca
                                                                          120
    40 ttttttggag gttgggaaag ttgctagagg cttcagaact ccagccta atg gat ccc
    41
    42
    225
    44 Lys Leu Gly Arg Met Ala Ala Ser Leu Leu Ala Val Leu Leu Leu Leu
    45
                      -20
    46 ctg ctg gag cgc ggc atg ttc tcc tca ccc tcc ccg ccc ccq gcq ctq
                                                                          273
    47 Leu Leu Glu Arg Gly Met Phe Ser Ser Pro Ser Pro Pro Pro Ala Leu
                                     1
    49 tta qaq aaa gtc ttc cag tac att gac ctc cat cag gat gaa ttt gtg
                                                                          321
    50 Leu Glu Lys Val Phe Gln Tyr Ile Asp Leu His Gln Asp Glu Phe Val
                              15
    52 cag acg ctg aag gag tgg gtg gcc atc gag agc gac tct gtc cag cct
    53 Gln Thr Leu Lys Glu Trp Val Ala Ile Glu Ser Asp Ser Val Gln Pro
                          30
                                             35
    55 gtg cct cgc ttc aga caa gag ctc ttc aga atg atg gcc gtg gct gcg
                                                                          417
    56 Val Pro Arg Phe Arg Gln Glu Leu Phe Arg Met Met Ala Val Ala Ala
```

50

45

RAW SEQUENCE LISTING DATE: 03/26/2001 PATENT APPLICATION: US/09/731,872 TIME: 12:46:57

Input Set : F:\SEQ.LIS\Seq.lis

Output Set: N:\CRF3\03262001\1731872.raw

59	Asp	acg Thr	ctg Leu	Gln	cgc	ctg Leu	ggg Gly	gcc Ala	Arg	gtg Val	gcc Ala	tcg Ser	gtg Val	Asp	atg Met	ggt Gly	465
60				60					65					70			
67	CCL	Cay	Cla	CLG	Dro	gat	ggt	cag	agt	ctt	cca	ata	cct	CCC	gtc	atc	513
63			75			Asp		80					85				
64	ctg	gcc	gaa	ctg	ggg	agc	gat	ccc	acg	aaa	ggc	acc	gtg	tgc	ttc	tac	561
	Leu		Glu	Leu	Gly	Ser		Pro	Thr	Lys	Gly			Cys	Phe	Tyr	
66		90					95					100					
6/	ggc	cac	ttg	gac	gtg	cag	cct	gct	gac	cgg	ggc	gat	ggg	tgg	ctc	acg	609
		HIS	ьeu	Asp	vaı	Gln	Pro	Ala	Asp	Arg		Asp	Gly	Trp	Leu		
	105					110					115					120	
70	gac	CCC	tat	gtg	ctg	acg	gag	gta	gac	ggg	aaa	ctt	tat	gga	cga	gga	657
/1	Asp	Pro	Tyr	Val		Thr	Glu	Val	Asp		Lys	Leu	Tyr	Gly		Gly	
72					125					130					135		
73	gcg	acc	gac	aac	aaa	ggc	cct	gtc	ttg	gct	tgg	atc	aat	gct	gtg	agc	705
	Ala	Thr	ASP		гàг	Gly	Pro	val		Ala	Trp	Ile	Asn		Val	Ser	
75				140					145					150			0
76	gcc	TTC	aga	gcc	ctg	gag	caa	gat	ctt	cct	gtg	aat	atc	aaa	ttc	atc	753
	Ala	Pne		Ala	Leu	Glu	GIn		Leu	Pro	Val	Asn		Lys	Phe	Ile	
78			155					160					165				
79	att	gag	999	atg	gaa	gag	gct	ggc	tct	gtt	gcc	ctg	gag	gaa	ctt	gtg	801
	ite		CTÅ	мет	GIU	Glu		GIY	Ser	Val	Ala		Glu	Glu	Leu	Val	
81	~~~	170	~				175					180					
02	gaa	aaa Ta	gaa	aag	gac	cga	TEC.	LLC	tct	ggt	gtg	gac	tac	att	gta	att	849
	185	гаг	GIU	гĀЗ	ASP	Arg	Pne	Pne	Ser	GIA		Asp	Tyr	Пе	Val		
		ant.	220	a+ ~	+~~	190					195					200	
05	Con	yar.	Aac	tou	Egg	atc	agc	caa	agg	aag	cca	gca	atc	act	tat	gga	897
87	361	мэр	ASII	Leu	205	Ile	ser	GIII	Arg	LуS 210	Pro	Ата	ire	Thr	_	GIA	
	200	caa	aaa	220		tac	++0	a+-	~+~						215		0.45
89	Thr	Ara	614	Acn	Sor	Tyr	Pho	Mot	y Lg	Clu	gcg	aaa Ta	Ege	aga	gac	cag	945
90	1111	ni 9	Gry	220	361	TAT	FIIE	Met	225	GIU	Vai	гуз	Cys	230	Asp	GIN	
	gat	+++	cac		aaa	acc	+++	aat		a+ a	a++	oa+	~~~		a+~	ant	993
92	Asp	Phe	His	Ser	Glv	Thr	Dho	Glu	Clu	Tlo	Lau	Uic	Clu	Dro	Mot	712	993
93	ПОР		235	501	011	1.111	1 110	240	GLY	116	Deu	1113	245	PIO	Mec	AIG	
-	gat	cta		act	ctt	ctc	aat		cta	αta	пас	tca		aat	cat	ato	1041
95	Asp	Leu	Val	Ala	Leu	Leu	Glv	Ser	Len	Val	Acn	Ser	Sor	610	Hic	Tla	1041
96	•	250					255			,	p	260	001	OI,	1113	110	
97	ctq		cct	gga	atc	tat		gaa	ata	att	cet		aca	паа	σασ	паа	1089
98	Leu	Val	Pro	Glv	Ile	Tyr	Asp	Glu	Val	Val	Pro	Leu	Thr	Glu	Glu	Glu	1003
99	265			•		270					275			0_0		280	
100	ata	aat	aca	tac	aaa	qcc	ato	cat	: cta	gac		gaa	а даа	tac	. caa	aat	1137
101	Ile	Asn	Thr	Tyr	Lys	Āla	Ile	His	Leu	Asp	Leu	Glu	ıĞlu	Tvr	Aro	Asn	
102				-	285					290					295		
103	ago	ago	cgg	gtt	gaq	aaa	ttt	cto	tto			aac	gaq	г дао		cta	1185
104	Ser	Ser	Arg	Val	Glu	Lys	Phe	Leu	Phe	Asp	Thr	Lys	Glu	Glu	Ile	Leu	
105			_	300		-			305			•		310			
106	atg	cac	ctc	tgg	agg	tac	cca	tct	ctt	tct	att	cat	. ggq	ato	gaq	ggc	1233
				_													

RAW SEQUENCE LISTING DATE: 03/26/2001 PATENT APPLICATION: US/09/731,872 TIME: 12:46:57

Input Set : F:\SEQ.LIS\Seq.lis

Output Set: N:\CRF3\03262001\1731872.raw

107 108	Met	His	Leu 315	Trp	Arg	Tyr	Pro	Ser 320	Leu	Ser	Ile	His	Gly 325	Ile	Glu	Gly	
	gcg	ttt	gat	gag	cct	gga	act	aaa	aca	atc	ata	cct	aac	cga	att	ata	1281
	Ala																•
	Ala	330	лэр	GIU	110	GLY	335	כעם	1111	· aı	110	340	QT,	nr 9		110	
111													~+ ~	+ -+		~+~	1329
	gga																1329
	Gly	ьys	Phe	Ser	ile		Leu	vaı	Pro	His		Asn	vaı	ser	Ala		
	345					350					355					360	
115	gaa	aaa	cag	gtg	aca	cga	cat	ctt	gaa	gat	gtg	ttc	tcc	aaa	aga	aat	1377
116	Glu	Lys	Gln	Val	Thr	Arg	His	Leu	Glu	Asp	Val	Phe	Ser	Lys	Arg	Asn	
117					365					370					375		
118	agt	tcc	aac	aaq	atq	qtt	qtt	tcc	atq	act	cta	gga	cta	cac	ccg	tgg	1425
	Ser																
120	001		****	380					385					390		•	
	att	aca	a a +		na t	gac	acc	cad		ctc	aca	aca	222		aca	atc	1473
	Ile																11/5
	шe	Ala		ire	ASP	мър	1111		TAT	пеп	Ala	Ala	405	Arg	AIG	116	
123			395					400									1501
	aga						_		-	-			_				1521
	Arg		Val	Phe	Gly	Thr		Pro	yab	Met	Ilc	_	Asp	CIA	Ser	Thr	
126		410					415					420					
	att			-		_		-			_		_	_	-		1569
128	Ile	Pro	Ile	Ala	Lys	Met	Phe	Gln	Glu	Ile	Val	His	Lys	Ser	۷al	Val	
129	425					430					435					440	
130	cta	att	ccg	ctg	gga	gct	gtt	gat	gat	gga	gaa	cat	tcg	cag	aat	gag	1617
131	Leu	Ile	Pro	Leu	Gly	Ala	Val	Asp	Asp	Gly	Glu	His	Ser	Gln	Asn	Glu	
132					445					450					455		
133	aaa	atc	aac	agg	tgg	aac	tac	ata	gag	gga	acc	aaa	tta	ttt	gct	gcc	1665
	Lys																
135	•			460	-		-		465	-		-		470			
136	ttt	ttc	t.t.a	gag	atσ	acc	caq	ctc	cat	taat	caca	aaq a	acct	teta	ıa		1712
	Phe																
138			475	O_u			0.2	480									
	tete	atet		ccac	trac	a da	ttca			rcaca	tcc	ctac	iacac	aaa s	taaz	atgta	1772
																cttgg	1832
																aggtc	1892
																	1952
142	ccc	Cacto	ca c	acct	teet	.C aa	igte	tago	: Lgc	ctgc	age	aacı	. cga i		20006	agtcc	
																tgcaa	2012
																cataa	2072
				-			_									itaaaa	2132
146	atgt	tggt	ct o	cacc	cacto	ja aa	aaaa	aaaa	a aaa	aaaa	aaa	aaaa	aaaa	laa a	aaga	aaaaa	2192
147	aaaa	aaaa	ıa														2201
149	<210)> SE	II QE	NO:	2												
150	<211	L> LE	ENGTH	I: 16	31												
151	<212	2> TY	PE:	DNA													
152	<213	3> OF	RGANI	SM:	Homo	sap	iens	3									
	<220					-											
155	<221	> NA	ME/K	EY:	CDS												
156	<222	> LC	CATI	ON:	148.	.114	0										
	<220																

RAW SEQUENCE LISTING DATE: 03/26/2001 PATENT APPLICATION: US/09/731,872 TIME: 12:46:57

Input Set : F:\SEQ.LIS\Seq.lis

Output Set: N:\CRF3\03262001\1731872.raw

150	-22	1 N	AME /	vev.	a i a	200	+ :										
	9 <221> NAME/KEY: sig_peptide 0 <222> LOCATION: 148240																
162	1 <223> OTHER INFORMATION: Von Heijne matrix 2 score 10.0910253445132																
163																	
	53 seq LVLLLVTRSPVNA/CL 55 <400> SEQUENCE: 2																
	5 <400> SEQUENCE: 2 5 gtctgctgcc gccattgtgc ggcgctggtc ccctcagagg gttcctgctg ctgccggtgc 6(60	
	7 cttggaccct cocceteget totogtteta ctgccccagg agoccggcgg gtccgggact 120																
																gc ggc	174
169	CCC	gece	gug	ccgg	Lycy	gg c	gccg									ly Gly	1/4
170								1.1		30	cu ı	ıp o	ıu A	-	25	ry Gry	
		cta	aac	cct	ttc	tcc	ttc	cta			ata	cta	cta			aca	222
		etc ctg ggc cct ttc tcc ttc ctg ctg cta gtg ctg ctg gtg acg Leu Leu Gly Pro Phe Ser Phe Leu Leu Leu Val Leu Leu Leu Val Thr													222		
173			-20			001		-15		DC u			-10	Leu	• • • •	1111	
	caa	age		gtc	aat	acc	tac		ete	acc	aac	age		ttc	att	cta	270
				Val													2,0
176		-5			****		1				5					10	
177	ctq	cqc	atc	ttc	age	ttt	σασ	ccq	ata	ccc	-	tac	aσσ	acc	cta		318
				Phe													
179		_			15					20					25		
180	gtg	ctc	aag	ccc	cqq	gac	cgc	att	tct	gcc	atc	qcc	cac	cqt	qqc	qqc	366
				Pro													
182	30 35 40																
183	agc	cac	gac	gcg	ccc	gag	aac	acg	ctg	gcg	gcc	att	cgg	cag	gca	gct	414
184	Ser	His	Asp	Ala	Pro	Glu	Asn	Thr	Leu	Ala	Ala	Ile	Arg	Gln	Ala	Ala	
185			45					50					55				
186	aag	aat	gga	gca	aca	ggc	gtg	gag	ttg	gac	att	gag	ttt	act	tct	gac	462
187	Lys	Asn	Gly	Ala	Thr	Gly	Val	Glu	Leu	Asp	Ile	Glu	Phe	Thr	Ser	Asp	
188		60					65					70					
				gtc													510
		Ile	Pro	Val	Leu		His	Asp	Asn	Thr		Asp	Arg	Thr	Thr		
191						80					85					90	
				cga													558
	GTÅ	Thr	GIĀ	Arg		Cys	Asp	Leu	Thr		GLu	GIn	He	Arg	•	Leu	
194					95					100					105		
				gca			-				_			-	-	_	606
190	ASII	PTO	Ald	Ala	ASI	HIS	Arg	Leu	_	ASI	ASP	Pne	PIO	-	GIU	ràs	
	2+4	t		110					115					120			c= 1
				cta Leu													654
200	116	PIO	125	rea	mer	GIU	AId	130	Ата	GIU	Cys	ьeu	135	nis	ASII	Leu	
	202	ato		ttt	as t	ata	222		ant.	<i>a</i> aa	030	224		3.0±	~ a a	ant	702
				Phe													702
203	* 111	140	rne	FIIC	asp	141	145	GLY	1113	нта	1113	150	uTG.	T 111T	GIU	n1a	
	ota		aaa	atg	tat	atσ		+++	cct	caa	cta		aat	aat	agt	ata	750
		_		Met		-	-				_				-		, 50
206		-,, 0	_, _	-100	-1-	160				3211	165	-1-	1		501	170	
		tat	tct	ttc	tta		gaa	att	atc	tac		atσ	aga	caa	aca		798
				Phe													
		-				_				2 -	-4		3				





RAW SEQUENCE LISTING DATE: 03/26/2001 PATENT APPLICATION: US/09/731.872 TIME: 12:46:57

Input Set : F:\SEQ.LIS\Seq.lis

Output Set: N:\CRF3\03262001\I731872.raw

209				- 4 -	175					180					185		0.4.6
	cgg g																846
	Arg A	Asp	val		Thr	Ala	Leu	Thr		Arg	Pro	Trp	Ser		Ser	His	
212				190					195					200			
	aca c																894
	Thr (STA		GLŸ	Lys	Pro	Arg		Asp	Thr	Phe	Trp		His	Phe	He	
215			205					210					215				
	ttt	-	-	-	-		-		-		-					_	942
	Phe \		Met	Met	Asp	He		Leu	Asp	Trp	Ser		His	Asn	He	Leu	
218		220					225					230				-4	
	tgg t		_	-				-			_		_	_		-	990
	Trp T	lyr	Leu	Cys	Gly		Ser	Ala	Phe	Leu		Gln	Lys	Asp	Phe		
	235					240					245					250	
	tcc c	-	-		-	_	_			_				_	-	-	1038
	Ser F	Pro	Ala	Tyr		Lys	Lys	Trp	Ser		Lys	Gly	Ile	Gln		Val	
224					255					260					265		
	ggt t							-	-		_						1086
	Gly T	rp	Thr		Asn	Thr	Phe	Asp		Lys	Ser	Tyr	Tyr		Ser	His	
227				270					275					280			
	ctt g	-		-				-	-	_	-	-	_	_	_		1134
	Leu G	Зlу		Ser	Tyr	Ile	Thr	_	Ser	Met	Va1	Glu	_	Cys	Glu	Pro	
230			285					290					295				
	cac t		taga	ectt	ca c	ggt	ggad	eg aa	acg	ggtto	aga	aact	gcc	aggg	ggcct	ca	1190
	His F																
233		300															
	_						_	_					_			ctcac	1250
	35 acaaatgcaa tagttggtca ctgcattttt acctgaacca aagctaaacc cggtgttgcc 1														1310		
	36 accatgcace atggcatgee agagtteaac actgttgete ttgaaaatet ggggtetgaa :														1370		
		-				-	_		-					,	_	gagga	1430
	_		_	_	-				-	-	•		-			gcatg	1490
								-						-	•	caget	1550
240	atgtt	aac	at g	rtact	gtag	ja ca	tcaa	actt	gto	geca	ıtac	taat	aaaa	ıtt a	ittaa	aagga	1610
241	gcaca	aaa	aa a	ıaaaa	aaaa	ıa a											1631
	<210>																
	<211>				45												
	<212>																
	<213>				Homo	sap	iens	3									
	<220>																
	<221>																
	<222>				85	906											
	<220>																
	<221>				-	-	ide										
	<222>																
	<223>								jne	matr	ix						
256						6303											
257			-			VAG/	vs										
	<400>		_														
		_			_	-					_	-				attgt	60
261	agcct	tga	cg a	ggto	tgag	ic ga	cc a	tg g	ac c	gg c	cg g	igg t	tc g	rtg g	ıca g	cg	111



Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.





VERIFICATION SUMMARY DATE: 03/26/2001
PATENT APPLICATION: US/09/731,872 TIME: 12:46:58

Input Set : F:\SEQ.LIS\Seq.lis

Output Set: N:\CRF3\03262001\I731872.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date L:967 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 L:1585 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20 L:3409 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 L:6848 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 L:7168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:103 L:7243 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:104 L:7896 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:115 L:8934 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:135 L:8935 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:135 L:9027 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 L:9030 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:137 L:10895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:165 L:12294 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:188 L:12817 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:202 L:13014 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:207 L:13014 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:207 L:13192 M:258 W: Mandatory Feature missing, <223> not found for SEO ID#:210 L:13192 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:210 L:13779 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:220 L:13779 M:340 W: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:220 L:15366 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:253 L:16754 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:286 L:18651 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:338 L:18824 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:344 L:19208 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:356 L:19793 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:376 L:19853 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:378 L:19855 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:378 L:21997 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:448 L:22095 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:451 L:22433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:461